

# Canon

## AUTO ZOOM 318M

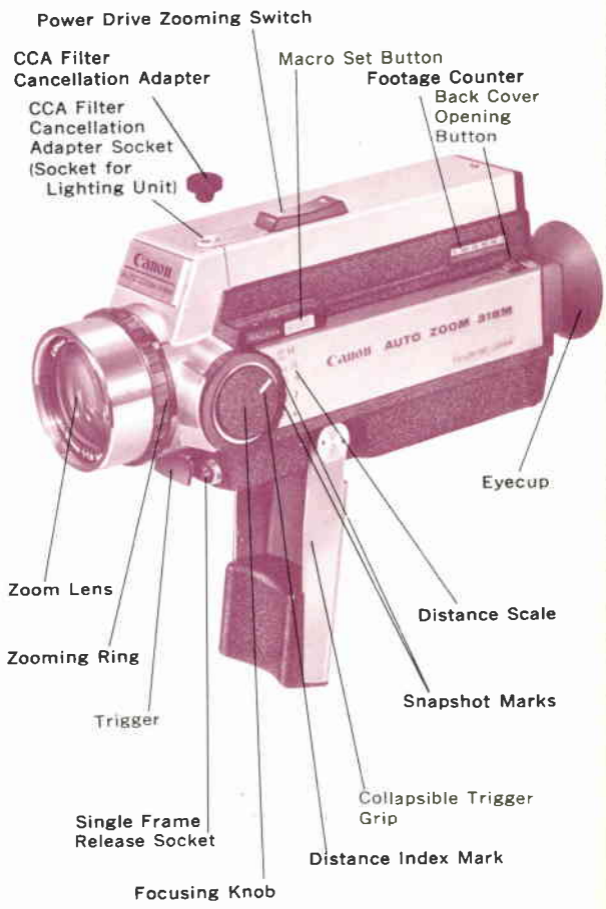
Instructions



English Edition

The Canon Auto Zoom 318M is a handy and popular 8mm movie camera designed for the beginner. It includes all the necessary features of an 8mm movie camera, including a zoom lens with 1:3 zoom ratio, an automatic zooming mechanism, and single-frame exposures for animation. It also features a new built-in macro filming mechanism, with which close-up filming is possible without any close-up lenses to increase the enjoyment of making motion pictures.





## TECHNICAL DATA

**Type:** 8mm movie camera using Super 8 film cartridge.

**Picture Size:** 5.8 x 4.2mm.

**Projected Picture:** 5.4 x 4.0mm.

**Lens:** F1.8 with zooming range of 10-30mm. Zoom ratio, 1:3. 11-element in 9-component construction.

**Macro Filming Mechanism:** Close-up filming is possible by resetting the zooming ring at "M" index mark. Camera-to-subject distance: 22.5cm (8-7/8") from film plane indicator. Picture area : 10.4 x 7.5cm (4-1/8" x 2-15/16").

**Focusing:** By eye-measurement. Distance scale and two snapshot marks indicated.

**EE Mechanism:** Automatic aperture setting coupled to film speed and filming speed.

**Exposure Meter:** TTL metering system using CdS photocell.

**Metering Range:** ASA 160, f/1.8, 18 fps—ASA25, f/22, 18 fps.

**Film Speeds:** Automatically set with insertion of film cartridge. Tungsten light ASA 40 or 160. Daylight, ASA 25 or 100.

**Color Temperature Conversion:** Built-in Color Conversion A (CCA) filter makes possible the use of tungsten type color film under daylight conditions. Under tungsten light conditions cancel the CCA filter with CCA Filter Cancellation Adapter.

**Filming Speeds:** 18 fps. and single frame.

**Film Drive:** By high performance micro-motor.

**Zooming:** Power drive zooming coupled to film drive. (Power drive zooming is possible only during shutter release.) Zooming speed: approximately 5.5 seconds. Manually operated zooming possible.

**Power Source:** Three 1.5v penlight (size AA) batteries. (Commonly used for film drive, power drive zooming, and CdS photocell.) Under normal temperature conditions, approximately 7 cartridges can be shot using manganese batteries and approximately 14 cartridges can be shot using alkaline batteries.

**Footage Counter:** Counts up to 50 feet. Automatically resets when the cartridge is taken out.

**Release Socket:** For cable release used for single frame exposures.

**Grip:** Collapsible Trigger Grip Equipped with accidental shutter release prevention cover.

**Accessories:** Screw-in type 40mm filter, 45mm lens cap (Exclusive), CCA Filter Cancellation Adapter, CCA Filter Cancellation Adapter Socket Cover, carrying case.

**Size:** 172 x 80.6 x 60mm. (6-3/4" x 3-3/16" x 2-3/8")

**Weight:** 470 grams. (1 lb. 9/16 oz.)

Subject to alterations.

## CANON AUTO ZOOM 318M FEATURES

### **Macro Filming Mechanism Makes Close-up Filming Easy**

The macro filming mechanism built into the Auto Zoom 318M has made possible close-up filming by simply resetting the zooming ring. An area of 10.4 x 7.5cm (4-1/8" x 2-15/16") can be covered by closing up on the subject until the distance from the film plane indicator to the subject is 22.5cm (8-7/8").

### **Newly Designed 3x Zoom Lens**

A newly designed Canon zoom lens, highly reputed for sharpness, is built into the small camera body. This lens is composed of 11-element in 9-component with three newly developed extravagant glasses. This lens boasts high resolving power to give you sharp and clear Super 8 size pictures. And, of course, you can also enjoy its superb zoom effects.

### **Easy Film Loading and Automatic Film Speed Setting**

Film is loaded by simply inserting a Super 8 film cartridge containing 8mm wide and 50 feet long film. The film speed is automatically set when the cartridge is inserted into the camera.

### **Power Drive Zooming**

This camera has a built-in power-driven zooming mechanism to perform smooth zooming.

### **Accurate Exposure Metering**

Accurate exposures can be obtained even when zooming because this camera is equipped with a TTL exposure meter, using a CdS photocell, which measures light passing through the lens.

### **World's First Built-In IC Power Circuit**

A highly accurate exposure meter, using a monolithic IC, is incorporated in the metering circuit. This checks the voltage fluctuation and makes possible very accurate exposure metering. Three 1.5V penlight batteries are commonly used as power for film drive, automatic zooming, and metering for the convenience of the user.

### **Sharp and Clear Single-Lens Reflex Type Viewfinder**

The viewfinder is of the single-lens reflex type, using a total reflection mirror. Therefore, subjects can be easily and clearly seen even under dark conditions. Under-exposure warning mark and macro filming indicator also built into the viewfinder.

### **Common Use of Power Source**

Three 1.5V penlight batteries are commonly used as power for film drive, automatic zooming, and metering for the convenience of the user. The metering circuit has a special built-in voltage stabilizing circuit for checking fluctuation and maintaining a very accurate exposure.

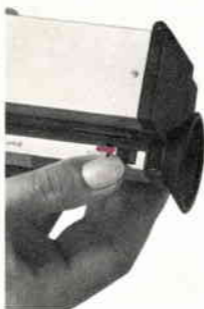
### **Compact, Lightweight**

The 318M is compact even with a built-in zoom lens, and it weighs only 470 grams (1 lb.-9/16 oz.).

## SIMPLE STEPS FOR SHOOTING

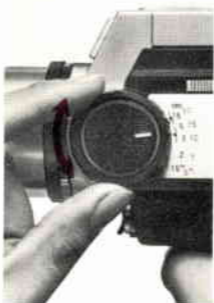
### Preparation

1. Remove the lens cap and unfold the grip.
2. Open the back cover.
3. Adjust the eyepiece.



### Shooting

7. Set the focusing knob to the distance scale.
8. Hold the camera and compose the picture.





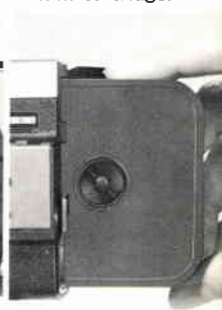
4. Load the batteries.  
※ Insert the battery chamber cover into the groove.



5. Set the ON-OFF switch at ON and check the functioning of the camera.



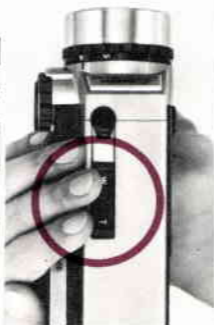
6. Load the Super 8 film cartridge.



9. Pull the trigger.



10. Perform zooming if necessary.



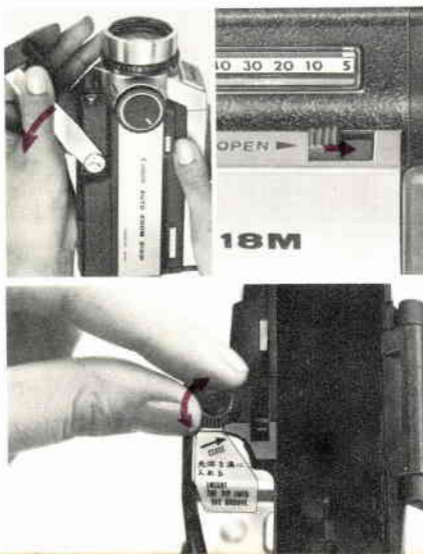
11. Take out the film cartridge after the entire film has been exposed.



### Adjustment of Eyepiece

Open the back cover. Then look through the viewfinder and choose a subject as far away as possible and focus so that the subject can be most clearly seen. The eyepiece can be adjusted between +1 and -3 diopters.

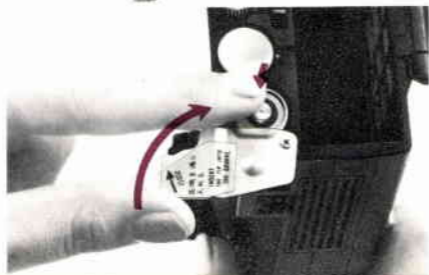
- The back cover opens by pulling the back cover opening button in the direction of the arrow.



### Loading of Batteries

Turn the battery chamber cover in the direction of the arrow and load the new batteries according to the diagram inside the battery chamber. Replace the battery chamber cover to its former position while pressing down on the loaded batteries. Be sure to insert the tip of the cover into the groove for battery chamber cover. Do not pull the cover in an upward direction as it will be bent.

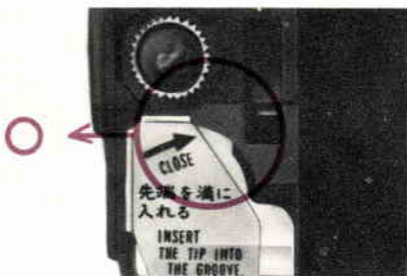
- When not using the camera for a long period of time, remove the batteries and keep it in a dry place.



### Closing Back Cover

Close the back cover after once again checking to see that the tip of the battery chamber cover is securely inserted into the groove for battery chamber cover.

- If the battery chamber cover is not securely inserted into the battery holder groove, the back cover cannot be completely closed.



## Number of Cartridges of Film That Can Be Shot Using Manganese and Alkaline Batteries

Type of Battery	18 fps.	Single-Frame
Manganese Battery	7 cartridges	1 cartridge
Alkaline Battery	14 cartridges	2 cartridges

### Changing Batteries

Change the batteries for new ones after the prescribed number of cartridges have been shot.

- When changing batteries, change all three 1.5v penlight (size AA) batteries at the same time.

Groove for battery chamber cover.



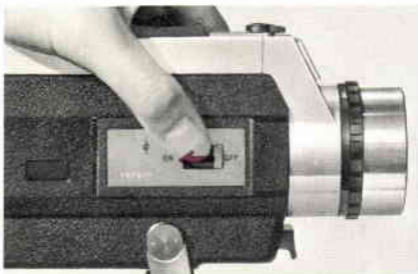
### Function Check

Set the ON-OFF switch at ON, pull the trigger and check the functioning of the camera.

- When set at ON, ON-OFF switch mark indicates Red.
- Set the ON-OFF switch at OFF when not using the camera or carrying it around. This is to prevent accidental release of the shutter and wasteful battery consumption.
- Fold the grip. By folding the grip, it becomes a safety cover for the shutter release.

### Loading of Film Cartridge

After opening the back cover, insert the film cartridge into the camera as shown in the photo. The film speed is automatically set when the film cartridge is inserted. Therefore, there is no need to set the film speed. The back cover will not close if the cartridge is not inserted in the correct direction.



## **Super 8 System**

### **Camera**

Tungsten type color film is ordinarily used for Super 8 system cameras. Generally, however, shooting is performed outdoors in daylight. For this reason this camera has a built-in CCA filter mechanism so that tungsten type color film can be used under daylight. On the other hand, the CCA filter must be cancelled when shooting indoors with artificial lighting.

### **Film**

- The film speed is automatically set when the film cartridge is inserted into the camera.
- Films can be interchanged even during shooting because they are of the cartridge type.
- Approximately 3 minutes and 20 seconds of shooting is possible with one cartridge of film at the standard filming speed of 18 fps.

### **Film Speed Setting**

Tungsten light ; ASA 40 and 160 (without CCA filter)

Daylight ; ASA 25 and 100 (with CCA filter)

- In ordinary indoor shooting, use an ASA 160 (Tungsten Type) film.
- In daylight shooting, use an ASA 40 (Tungsten Type) film.
- When taking outdoor pictures under strong light condition (EV 15 or over) with the ASA 160 (Ektachrome) film, use an ND filter.

### Shooting with Artificial Light

The Color Conversion A (CCA) filter is cancelled by screwing the CCA Filter Cancellation Adapter into the CCA Filter Cancellation Adapter Socket situated on the top side of the camera.

CCA filter can also be cancelled by inserting the Lighting Unit with the attachment foot of tripod screw into the CCA Filter Cancellation Adapter Socket.

This should be performed according to the type of film and the kind of lighting to be used.





## CCA Filter Cancellation and Usable Film

- When the CCA Filter Cancellation Adapter is not used, screw it into the tripod socket at the bottom of the body, and insert the CCA Filter Cancellation Adapter Socket Cover into the socket.

Lighting Type of Film	Daylight	Tungsten
Color Film (TungstenType)	Built-in CCA Filter	Cancell CCA Filter
Black-and-White Film	Cancell CCA Filter	Cancell CCA Filter

- Please be careful not to attach the tripod on the CCA Filter Cancellation Adapter Socket.

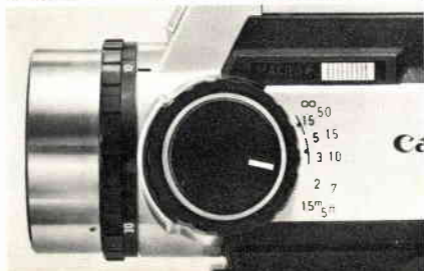


## Focusing

Focusing with the Auto Zoom 318M is simple. It is the eye-measurement type. After measuring the camera-to-subject distance with the eye, turn the focusing knob and set the distance index mark against the distance scale.

- The intermediate space between the distance scale figures can also be used. If the eye-measured distance should fall on an intermediate space, set the distance index mark against the corresponding intermediate space.

Distance Index Mark



### How to Use the Snapshot Marks

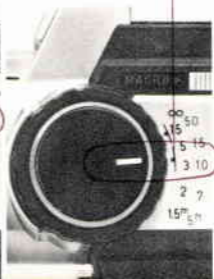
Use the snapshot marks when shooting outdoors in daylight. With the use of these marks, it is not necessary to focus each time you shoot. There are two snapshot marks, one for the close distance of 3.5 meters (11-1/2 ft.) and the other for the long distance of 14 meters (45-15/16 ft.). Make proper use of them according to the zooming distance.

- Use the close distance snapshot mark when the zooming ring is set at the wide-angle (10 mm) side.
- When setting the zooming ring between intermediate range and telephoto, make proper use of the snapshot marks according to the eye-measured camera-to-subject distance. Use the long distance snapshot mark if the eye-measured distance is close to 14 meters (45-15/16 ft.) and the close distance snapshot mark if it is close to 3.5 meters (11-1/2 ft.).

Long distance  
snapshot mark



Close distance  
snapshot mark



### **Holding Camera and Composing Picture**

Hold the grip with the right hand and place the forefinger on the trigger. Put the left hand on the top side of the camera so that you can operate zooming when necessary.

The viewfinder is of the single-lens reflex type. Therefore, there is no parallax and what can be seen will be exposed on the film. Compose the picture for the entire frame. At this time, it is convenient to perform zooming manually. (Refer to manually operated zooming on page 22.)

- In order to keep the camera steady, keep your right elbow pressed against your body and gently pull the trigger.

### **Exposure Checking and Warning Marks**

When the camera is aimed at a subject to be shot under dark conditions in which it is impossible to obtain proper exposure, the red warning mark will appear inside the viewfinder. Therefore, shooting can be performed as long as this red mark does not appear inside the viewfinder.

- When the red mark appears, it means under exposure.
- Shooting can be performed as long as the red mark does not appear.
- The red mark is also visible when the batteries are not loaded and when the ON-OFF switch is set at OFF.
- There is no indicator for over exposure. Therefore, select the proper film according to the lighting conditions (e.g. indoor or outdoor).

Under exposure warning mark



## Pull the Trigger.

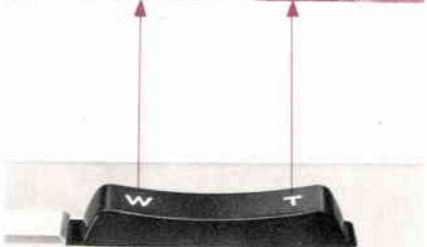
### Perform Zooming According to Necessity

When the zooming switch, situated on the top side of the camera is pressed while the shutter release lever is being pulled, the magnification of the image changes and the subject can be exposed on film as an image gradually becoming larger or smaller.

### Power Drive Zooming

By setting the zooming switch at T (telephoto) or W (wide-angle), the image becomes larger or smaller respectively, and zoom up or zoom back effects can be obtained.

- Power drive zooming functions only during the time the trigger is being pulled.
- Zooming speed is approximately 5,5 seconds.



### **Manually Operated Zooming**

Manually operated zooming can also be obtained by turning zooming ring.

- Manually operated zooming is generally used before shooting when you wish to increase the magnification of the image.
- It is also used when rapid or slow zooming effects are required.



### Single-Frame Filming

You have, no doubt, observed scenes in documentary films in which flowers fully bloom in a very short time. These scenes are all taken with single-frame shooting. This type of shooting is performed mounting the camera on a tripod and screwing a cable release into the single-frame release socket.

- In single-frame filming, for better effects it is advisable to calculate the number of frames to be shot before shooting according to the following expression.

**Number of frames per second (18 fps) x number of seconds = number of frames to be shot.**

For example, if the scene is to be projected in 1 minute 20 seconds, it will require:  
18 frames x 80 seconds = 1,440 frames.



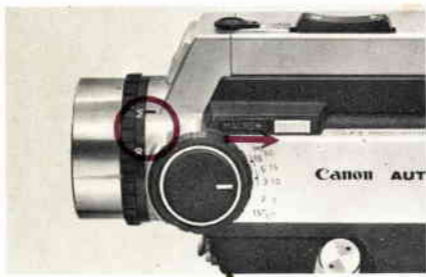
## Macro Filming

Besides ordinary filming, the Auto Zoom 318M can also be used for close-up filming with a built-in macro filming mechanism. Thus, close-up filming is easily possible without attaching a close-up lens. The world of macro filming is now yours to discover... on the seashore, in the mountains, all around you. Macro filming is now easily available for you to enjoy.

## How to Shoot

- (1) Turn the zooming ring and set it at the "M" index mark while sliding the macro set button in the direction of the arrow.
- (2) Next, set the distance index mark of the focusing knob at 3 (m) on the distance scale.

Under this condition, the focus point will be at a distance of 22.5cm (8-7/8") from the film plane indicator. The shooting area at this time is 10.4 x 7.5cm (4-1/8" x 2-15/16"). This type of shooting can be used for shooting small animals, plants and insects or titles.





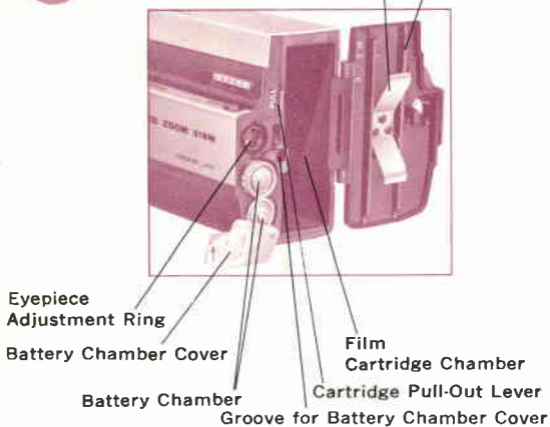
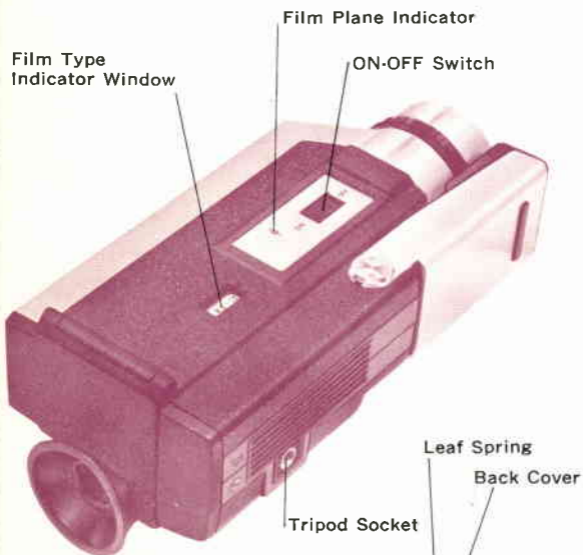
### Warning Indicator for Macro Filming

- When the camera set at "M" index mark entire field-of-view of the viewfinder turns yellow, indicating macro filming.
- The depth of field in close-up filming is shallow. Therefore, mount the camera on a tripod and accurately measure the distance from the film plane indicator on the camera to the subject. The depth of field at the maximum aperture opening of  $f/1.8$  is approximately 1cm and 1cm (3/8" and 3/8") in front and behind the subject respectively. The depth of field is approximately 7cm and 30cm (2-3/4" and 11-13/16") in front and behind the subject respectively at the minimum aperture opening of  $f/22$ . Therefore, perform shooting under the brightest lighting conditions possible.
- The depth of field, with the focused subject increases as the aperture is closed down and becomes shallow at the camera closes in on the subject.

### Notice :

- Be sure to cover the eyepiece with your hand or by other means when the eye is not against the eyepiece during panning, single frame filming or titling. Otherwise, undesired light may enter through the eyepiece, and cause incorrect exposure or ghost images on the film.





## Film Completion Check and Film Cartridge Removal

Stop shooting when the driving sound changes and the footage counter indicates F. Then take out the film cartridge by pulling the cartridge pull-out lever.



## Canon Macro Frame

This is an exclusive accessory for easy macro filming, which is attached to the CCA filter cancellation adapter socket. The titling can be performed only by inserting the titling paper into the front frame. The Canon Macro Frame can also be used for measuring the subject distance by simply detaching the front frame.



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